

3. Quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as the invention.

This reference reviewed as regards to the claim.

4. Rejection of Claim 1 under 35 U.S.C. 112 response:

The invention as stated in the Claim is "A manual apparatus for use by an operator to slice a potato into a uniformly thin continuous spiral slice". The apparatus of the invention is composed of several component parts which function together in operation of this cutting device. The details of the apparatus have been both described in the text and illustrated in a drawing. In prior reviews of the application by patent examiners it has been stated that several component parts have similarities in shape, function or name to prior art. Where the similarities are not apparent the potential for the component being a logical

discovery of any inventor knowledgeable in the field is judged as a disqualification.

Similarities, differences and the potential of being apparent take away much of the uniqueness originated by the inventor. What remains after removal of the challenged components function, shape or name are then judged as to patentability.

The apparatus of the invention still cuts a potato in the manner and type originally claimed. What sets the apparatus apart from prior art is the adaptation of a simplified drive method utilizing a thread form different from those found in prior art. Prior art all use thread types square, acme and buttress as translation threads. These three thread types are both difficult and very expensive to manufacture. The 3/8-16 thread is a pitch/thread combination found only in the American Standard Uniform Thread Form. This 3/8-16 thread utilized in the apparatus of the invention are sharp/angled threads. This thread form has historically been used only as a thread fastener as with nuts and bolts. No applications were found in the search of this thread form being used as a translation

thread. The development of this drive method is effective in this application to the apparatus of the invention and provides for economic manufacture.

Roll threaded stainless steel, 3/8-16 threads per inch, is used to manufacture the spindle of this device. Rolled threads are die-formed and in the process of rolling some excess material is generated on the crest of the thread. This excess material is removed by grinding in the manufacture of the spindle. This 3/8 -16 thread is not changed by the process of grinding the crest. Within the standard of this thread type the controlling factor is the percent of engagement between internal and external threads. The crest height of an external thread is selected by engineering design for the amount of engagement desired in the threading application. Internal threads are likewise engineered for the percent of engagement desired by selection of a hole size prior to tapping the threads. A thread remains standard within this thread type though it may vary by design commonly between 50% and 80% engagement.

5. Quotation of 35 U.S.C. 103(a) reviewed as a basis for rejection.

The use of 3/8-16 thread in the invention of a cutting device requiring a translation thread is not an engineering normality. Few if any applications in machinery load translation can be identified and none in prior art. The development of the drive method in the apparatus of the invention was for effective performance and economic manufacture. It is a non-standard application and has a separate basis from prior art.

Certain threads are used to repeatedly move or translate machine parts against heavy loads. The translation threads have a stronger form and include square, acme and buttress. All prior art were found to use one of these three thread types.

6. Claim Rejection under 35 U.S.C. 103(a) as being unpatentable over Ross (2,464,993)

Response: In compliance with the findings of the examiner several elements of the apparatus have been removed from the claim. Those so removed

having been identified as bearing similarities to prior art. References to function have been retained for continuity of describing the apparatus of the invention.

Threading - Ross 2,464,993 Column 3, line 35-37 states: "The pitch of the threads on the feeding element is such that a complete revolution thereof moves the feeding plate just $1/4$ " "

This would require square, acme or buttress threads, threaded 4 threads per inch. A very large size feed element is indicated.

| | | |
|-----------------------|-----------------------|---|
| square or acme | 4 threads/inch | Diameter $1 \frac{3}{8}$" |
| buttress | 4 threads/inch | Diameter $1 \frac{1}{2}$" |

The drawing shows square or acme threads which would permit the use of the stem engager element as described in Column 3, Lines 7-13. This thread has near straight sides and very minimal pressure toward disengagement. This is a very different condition than results from the use of the 3/8-16 threads in the apparatus of the invention which is a sharp-V thread and has very high pressure toward disengagement.

Locknuts - reference by the examiner to the obviousness or widespread use of locknuts:

These items have been removed from the claim

-and secured in position by a first lock nut 15

-and secured by a second lock nut 12